Section “Agenda” revised on 05/09/2013

Section “Positions and scholarships” revised on 21/10/2013

Coordinator
Professor Maurizio Gabbielli – Department of Computer Science and Engineering - Mura Anteo Zamboni, 7 - Bologna – maurizio.gabbielli@unibo.it
Website
http://www.cs.unibo.it/en/research/grad/
Duration
3 years
Academic Year
2013/2014
Programme start date
01/01/2014
Programme held in
English

Main Department
Department of Computer Science and Engineering

Associated Universities
Università di Parigi VII - Equipe di Preuves, Programmes et Systemes
École Polytechnique - Palaiseau, Francia Laboratoire LIX
Université Joseph Fournier - Grenoble - Laboratoire INRIA Rhone-Alpes
Ecole Normale - Department of Computer Science
Universita’ di Lione - Dipartimento di Computer Science

Research topics
- Distributed systems and algorithms
- Programming languages and systems
- Data Bases
- Computer networks and applications
- Software engineering
- Formal methods and semantics of programming languages
- Artificial intelligence
- Real-time and fault-tolerant systems
- Parallel algorithms and probabilistic algorithms
- Image Processing
- Bioinformatics and biometric systems
- Information systems and databases
- Concurrency theory
- Security
- Logical foundations of computer science
- Multimedia systems

Requirements and admission procedures

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Admission procedures</th>
<th>Notes on admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Italian university degree (laurea specialistica/ magistrale - 3+2 years) or pre-reform degree (vecchio ordinamento - 4 years) or an equivalent degree obtained abroad. Also applicants whose degree will be awarded no later than December 31, 2013 can participate to the selection procedures.</td>
<td>Evaluation of academic qualifications and research project Oral examination</td>
<td>For applicants residing abroad, the oral examination can be done remotely through video-conference based on the IP protocol. In this case, at the time of application for admission, applicants should indicate the choice of this mode for the oral examination and indicate a valid address/contact and an e-mail address. The request must be authorized by the Admission Board upon verification of the conditions needed to ensure the proper conduct of the test (verification of the identity of the applicant). The applicant will be informed by the Admission Board, by e-mail, about the date and the time to carry out of the oral examination, on days specified for the oral examination. The applicant must ensure his/her availability to the address indicated in the application beginning at the agreed hour and for the next two hours. In case the applicant is not found for three times by members of the Admission Board, he/she will be considered as definitely not registered with the oral examination.</td>
</tr>
</tbody>
</table>

Mandatory documents to be enclosed with the online application (failure to comply with such requirements will result in the exclusion from the competition)

1. CV
2. copy of Bachelor’s and Master’s degree, list of exams taken with grades and final mark (in Italian or English)
3. for those who do not hold a Master’s degree when submitting the application: copy of the exams taken with grades

For documents listed at points 2. and 3., please note that:
- for degrees obtained in Italian Universities: upload a SIGNED self-declaration;
- for degrees obtained in non-EU Countries: upload the degree certificate issued by the relevant University;
- for degrees obtained in EU countries (except Italy): you can either upload a SIGNED self-declaration or the degree certificate issued by the relevant University, translated in Italian or English;
- all documents must contain the following information: personal data, name of the University, degree name, final score, transcript (see art. 2 of the call)

4. research project focusing on a research topic of the PhD programme (max lenght: 1.000 words). Such a project will not necessarily be the subject of the successful applicant’s doctoral studies
5. at least a letter of reference (max 3) (to be sent through the procedure available on the website http://studenti.unibo.it)
6. abstract of the Master Dissertation carried out by the applicant, written in Italian or English (max lenght: 500 words); for graduands, draft of the Dissertation approved by the Supervisor

Other documents to be enclosed, if available
- Publications
- Other qualifications (tenure of scholarships, awards, honours, attendance of courses, participation to Erasmus or other exchange programs, etc.)
### Agenda

<table>
<thead>
<tr>
<th>Description</th>
<th>When</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of academic qualifications and research project</td>
<td>23/10/2013</td>
<td>Department of Computer Science and Engineering - Mura Anteo Zamboni, 7 – Bologna (applicant presence not requested)</td>
</tr>
<tr>
<td>Oral examination</td>
<td>04/11/2013</td>
<td>Department of Computer Science and Engineering - Mura Anteo Zamboni, 7 - Bologna 9 a.m.</td>
</tr>
</tbody>
</table>

### Assessment criteria

**Total score: 100/100**

#### 1. Evaluation of academic qualifications and research project

- minimum score required for the admission to the oral examination: 30
- maximum score: 50
- Score is assigned as follows:
  - evaluation of the degree mark (for applicants who have a university degree at the time of submission of the application) or evaluation of the university exams taken with grades (for applicants who still not have a university degree at the time of submission of the application): max 25 points;
  - reference letters: max 5 points
  - research project: max 10 points
  - CV and publications: max 10 points

The results of the evaluation of academic qualifications and research project will be posted on the bullet board of the Department and on the site [http://studenti.unibo.it](http://studenti.unibo.it), restricted access by University credentials (by selecting: sintesi delle richieste in corso → vedi dettaglio → risultati prova).

#### 2. Oral examination

- minimum score required in order to be listed in the final ranking: 30
- maximum score: 50
- The oral examination will focus on the explanation and discussion of the applicant’s research project.
- The oral examination will assess the applicant’s aptitude for scientific research, as well as her/his general knowledge.
- The results of the oral examination will be posted on the bullet board of the Department and on the site [http://studenti.unibo.it](http://studenti.unibo.it) (by selecting: sintesi delle richieste in corso → vedi dettaglio → risultati prova2).

The final ranking with details of winners will be published on the site [http://studenti.unibo.it](http://studenti.unibo.it), restricted access by University credentials. Any information concerning the publication of the final ranking will be available on [www.unibo.it/Dottorati/Bandi29](http://www.unibo.it/Dottorati/Bandi29). The Admission Board will not send any communication to the applicants about the outcome of the tests. It is the responsibility of the applicants to be informed on the outcome (see art. 6 of the call).

### Language requirements

During the oral examination, knowledge of English will be tested. The oral examination will be held either in English or Italian, depending on the applicant’s choice. For foreign applicants, the knowledge of Italian is not mandatory.

### Positions and scholarships

**Total number of positions:** 14, of which:

- **6 positions with scholarship granted by the University of Bologna** (one scholarship is made available with funds provided in part by the Department of Computer Science and Engineering; another scholarship is made available with funds fully provided by the Department of Computer Science and Engineering and by the Department of Electrical, Electronic and Information Engineering)
- **2 positions with scholarship "Fondo Giovani 2012" granted by MIUR**, committed to:
  - Scope of Investigation 7 "Innovative telecommunication systems for different uses, including first aid in case of natural disasters"
  - Scope of Investigation 9 "ICT and electronic components"
- **6 positions without scholarship**